

AMENDMENTS TO THE CLAIMS

1 to 5. (Canceled)

6. (New) A single walled carbon nanohorn adsorptive material, wherein a lanthanide metal is deposited on a single walled carbon nanohorn.

7. (New) The single walled carbon nanohorn adsorptive material according to claim 6, wherein the lanthanide metal is deposited on the single walled carbon nanohorn in an amount not less than 0.01 mmol and not more than 5 mmol per 1 g of the single walled carbon nanohorn.

8. (New) The single walled carbon nanohorn adsorptive material according to claim 6, wherein the lanthanide metal is any of the group consisting of La, Ce, Pr, Nd, Pm, Sm, Eu, Gd and Tb.

9. (New) The single walled carbon nanohorn adsorptive material according to claim 7, wherein the lanthanide metal is any of the group consisting of La, Ce, Pr, Nd, Pm, Sm, Eu, Gd and Tb.

10. (New) A method for producing a single walled carbon nanohorn adsorptive material, wherein a lanthanide metal is deposited on a single walled carbon nanohorn by suspending a single walled carbon nanohorn in ethanol, adding a predetermined amount of an ethanolic lanthanide nitrate solution, performing sonication, and evaporating to dryness.

11. (New) The method for producing a single walled carbon nanohorn adsorptive material according to claim 10, wherein the single walled carbon nanohorn is oxidized by heating in flowing oxygen before suspending it in ethanol.

12. (New) The single walled carbon nanohorn adsorptive material according to claim 6, having methane adsorptivity.

13. (New) The single walled carbon nanohorn adsorptive material according to claim 7, having methane adsorptivity.

14. (New) The single walled carbon nanohorn adsorptive material according to claim 8, having methane adsorptivity.

15. (New) The single walled carbon nanohorn adsorptive material according to claim 9, having methane adsorptivity.